



THE CATHOLIC WOMEN'S LEAGUE OF CANADA

DISCUSSION PAPER ON

WASTE MANAGEMENT

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The Catholic Women's League of Canada
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The Catholic Women's League of Canada is the largest national organization of women in Canada with more than 101,000 members represented in every province, territory, and in the military.

Members are encouraged to use this discussion paper as a resource along with the *Pastoral Letter on the Christian Ecological Imperative* and *Appendix*, issued on October 4, 2003, by the Canadian Conference of Catholic Bishops. League objectives encourage members to become and remain good stewards of the environment.

Industrial and economic changes have had a positive effect on how people live, communicate, travel and consume. Even though these changes are very progressive and result in desired life style conveniences, negative impacts on the environment have been experienced, often with devastating results. Better waste management practices are required to ensure cleaner air, cleaner water, and a more sustainable use of natural resources. Furthermore, the recovery and re-use of many waste materials can result in new and alternative economic opportunities.

Members must reflect on current waste disposal practices and the need for a greater effort to reduce, re-use, and recycle. Solutions are also needed in the areas of nuclear waste and the disposal of used nuclear fuel, oil waste, thermal pollution and agricultural waste.

“Canada is one of the top solid waste producing nations of the world. A survey from Statistics Canada reveals that in 1998, we produced 29.6 million tons of waste originating from municipal, commercial, institutional, industrial, construction renovation and demolition (CRD) sectors. Of these materials 33% were generated from residential sources such as households and 67% from non residential. The average Canadian generated 990 kg of waste per year, from which 295 kg is actually reused or recycled (= 30% diversion). In comparison, Mexico is the industrialized nation that has the lowest per capita waste production at 300 kg per person per year.”¹

Most of the current techniques for disposing of waste (whether it be solid or liquid) are not adequate. In some provinces, incinerators are still in use creating toxins and gases that are released into the air. In other provinces, landfill sites are full and the government is forced to export waste to other countries for disposal. This is not environmentally friendly, nor does it show Canadians as good stewards of the environment. Many landfills are unlined and deadly chemicals continually leach into streams, rivers and oceans destroying plant, fish and animal habitat as well as ruining the beauty of natural landscapes.

Thermal Pollution

“Thermal pollution is the heating of the water environment to a temperature that is harmful to the inhabitants. In fact there are a few different sources of thermal pollution. The most apparent is the release of heated wastewater or effluent from industries, particularly from electrical and nuclear

¹ *Waste Management Guide*, Public Works and Government Services Canada, March 2003, p. 102.

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power plants. Large quantities of cooling water are used to condense steam in power plant operations. The cooling water absorbs heat from the steam, causing the water temperature to increase.” In most cases this process proves to be detrimental to various life forms. “Rapid changes in water temperature can cause stress to organisms, making them more susceptible to disease, parasites and toxic chemicals.”²

Agricultural Pollution

Agricultural waste comes from a variety of sources: crop production, pastures, range-lands, feed lots and animal operations. These contribute to greenhouse gases that are emitted every day into the environment as well as pesticides, herbicides, oxygen demanding substances and toxins, which are released into lands, streams and waterways.³

Rivers and Lakes Pollution

Contaminants and effluent from agricultural, industrial and municipal sources are causing various degrees of pollution in and around lakes and streams all across Canada. This is especially true in the water quality of the Great Lakes and the St. Lawrence River. Although the federal government has implemented strategic planning for cleanup, much still needs to be undertaken.

In the Prairie Provinces, a major concern is “the eutrophication of lakes, (the overnourishment of aquatic ecosystems with plant nutrients resulting from natural processes, such as erosion and runoff and from human activities in relation to agriculture, urbanization and industrial discharge). These nutrients support large amounts of aquatic life that can deplete the oxygen supply in bodies of water.”⁴ Pollutants not only cause health risks to humans but are also having serious effects on the environment. Ecosystems and habitat are also in decline.

Harbour Water Pollution

Canada's coastlines and ports from the Atlantic Region to the Pacific and to the Arctic are in need of great attention. For example, “in Newfoundland and Labrador, every day 120 million litres of raw sewage and storm water- runoff, enters the harbour. This inflow contributes an annual loading of the harbour of 3,700 tons of biochemical oxygen demand (BOD) material, 4,200 tonnes of solids and 200 tonnes of phosphorus. Harbour water is further contaminated with bacteria and pathogens, as indicated by extremely high faecal coliform bacteria counts.” Because of all these contaminants, untreated water contains viruses and toxins and an accumulation of heavy metals.

“Untreated, wastewater can be harmful to aquatic organisms, including fish and fish food through the introduction of toxins into the receiving waters and the smothering of benthic organisms [organisms living on, or very near, the bottom of the sea]. This can lead to a reduction of fisheries habitat, closure of shellfish harvest areas, increase in nuisance algal blooms and species composition changes.” These are also a negative health risk to people in direct contact with harbour water and the general public already feels at risk due to its degraded environmental quality.⁵

2 *Guide to Understanding Water Pollution*, 2000, p. 38, 40, 41 and 76.

3 *Ibid.*

4 *Human Activity and the Environment 2000*, Statistics Canada, p. 205.

5 “The Comprehensive Environment Management Plan 2003,” St. John's Harbour Atlantic Coastal Action Program, <<<http://www.thezone.net/stjacap/html/cemp.html>>>, p.1.

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Solutions

Even though the situation seems critical, the average citizen can play a very important role becoming more pro-active to help preserve the environment for future generations. For example:

- keep the pressure on politicians to implement better practices
- demand the use of less product packaging by manufacturers
- recycle paper, cardboard and plastics
- shred papers to create less garbage
- set an example by retrieving wrappers and pop cans that were tossed aside by careless people
- compost home and garden waste
- avoid flushing chemicals, paints, plastics and medications into septic systems or sewers
- help eliminate greenhouse gases emitted from power and nuclear plants by conserving electricity in homes and places of employment
- use wind power for electricity rather than non renewable resources
- garden organically and reduce the use of pesticides
- contact local municipality for collection dates of household hazardous waste

The League commends the federal, provincial and territorial governments in Canada, in partnership with municipal governments and the private sector, for taking the initiative toward a better future in waste management. It is very important that politicians and environmentalists continue to work toward implementing modern waste management strategies throughout Canada.

Recent government initiatives include funding and setting up provincial waste management boards, implementing various recycling programs, advocating improved and alternative landfill and incinerator disposal methods and introducing educational programs. "The results achieved with these global and Canadian initiatives are generally very good. For example, in Canada:

- the PEI Waste Watch program enabled the residential and industrial, commercial and institutional sectors in the province to divert from landfill 65% of the waste they produce;
- the NS Used Tire Management program has enabled the province to recycle 3 million tires;
- Ontario's Blue Box Program, now provides 90% of the province's households with access to curbside recycling, diverting 658,000 tonnes of waste in 1999;
- the Western Canada Used Oil Materials Recycling Programs recovered 8.57 million oil filters in 2000. This is equivalent to 80% of the filters available for recycling; and
- in the NWT the Inuvik Recycling Society clean bag program has diverted almost 184,000 items from the landfill within the first seven months of operation."⁶
- two ECO Stations have been set up in Edmonton for the collection of household hazardous waste. "In 2002 alone, the Eco Stations took in 324,000 liters of used oil, 224,000 liters of waste paint, 21,000 used oil filters and 5,300 car batteries;"⁷
- in May of 2003 Calgary held its first E-Cycle Roundup Day, "to collect residential electronics for recycling (one of the fastest growing portions of the waste stream) during the six hour event, the city collected a whopping 222,000 kilograms of e-waste."⁸
- most provinces have set aside special collection days for household hazardous waste materials.

⁶ *Waste Management Guide*, Public Works and Government Services, Canada, March 2003, p. 105-106.

⁷ "Waste Reduction Week - Alberta Cities Working on Waste Management," *Calgary Herald*, October 19, 2003, p. WR3.

⁸ *Ibid.*

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Much still needs to be done. More federal funding for the provinces, specifically designated for waste management, is urgently required. An important area of expenditure is on education, which is the key to changing waste management attitudes and practices and to helping Canadians become better stewards of the environment. Education of children is believed to be particularly effective in effecting quick and lasting change. When children understand the importance of waste diversion and recycling they can have a big influence on the attitudes and behaviour of their parents. The private sector also needs to be encouraged to take advantage of the many spin-off industries that can develop and the jobs that can be created by reusing materials in the waste stream. In many provinces waste management is big business i.e., collection, salvage, sorting, recycling and disposal.

Conclusion

In summary, lack of comprehensive management of waste poses many threats to children, to health and to the environment. Furthermore, waste represents untapped economic opportunities for Canadians in industries that include collection, sorting, processing, testing for contaminants, manufacturing and marketing. Better environmental stewardship is required. The government is starting to play a greater role in waste management and many have adopted solid waste management strategies. "The objects of solid waste management are to reduce the negative impacts of landfill sites, resource consumption and greenhouse gas emissions, to cut costs, to comply with regulations, and to meet public expectations."⁹ Governments have also established multi-materials stewardship boards to promote waste reduction, reuse and recycling and carry out public education programs in support of modern waste management. Citizens as well as governments must become more proactive. Public education is an important key to sound waste management practices.

⁹ *Sustainable Development in Government Operations: A Cooperative Approach*, Public Works and Services, Canada, 2000, p. 4.

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